

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

UNITED SERVICES AUTOMOBILE)	
ASSOCIATION)	
a Texas reciprocal inter-insurance exchange,)	
)	
Plaintiff,)	
)	
v.)	
)	
PNC BANK N.A.,)	Civil Action No. 2:21-CV-110
)	
Defendant.)	JURY TRIAL DEMANDED
)	
)	
)	
)	
)	
)	

COMPLAINT

Plaintiff United Services Automobile Association (“USAA”), by its undersigned counsel, for its Complaint against defendant PNC Bank, National Association (“PNC”), states as follows, with knowledge as to its own acts, and on information and belief as to the acts of others:

1. This lawsuit is brought to address PNC’s use of USAA’s patented technology relating to remote check deposit for mobile banking systems. This patented technology enables USAA to connect members of the military and their families across the globe to financial services. USAA developed this technology as part of its mission to improve the financial security of its members. In its decades of serving the military community, USAA has worked to innovate in serving the needs of its members, including a lifestyle that can make getting to a bank branch difficult, particularly if they are out to sea or deployed outside the United States. PNC has chosen to use USAA’s patented technologies without permission for its own commercial gain. This lawsuit seeks remedies for PNC’s misconduct.

II. THE PARTIES

2. Plaintiff USAA is a reciprocal inter-insurance exchange and unincorporated association organized under the laws of the State of Texas having its principal place of business at 9800 Fredericksburg Road, San Antonio, Texas 78288. The USAA family of companies is dedicated to the financial well-being of members of the military and their families through the provision of insurance and banking products and services, and investing services. USAA does business in this judicial district.

3. On information and belief, PNC is a national banking association organized under the laws of the United States of America. PNC does business throughout the United States, including in this judicial district.

III. JURISDICTION AND VENUE

4. Subject matter jurisdiction is based on 28 U.S.C. § 1338, in that this action arises under federal statute, the patent laws of the United States (35 U.S.C. §§ 1, *et seq.*).

5. The Court has personal jurisdiction over PNC because it has substantial, systematic and continuous contacts with this judicial district. PNC has a regular and established place of business in the State of Texas and in the Eastern District of Texas, including operating several physical branches in this judicial district, and conducting business with customers residing in this judicial district both through its branches and its mobile banking services. PNC has committed acts of patent infringement and, as detailed below, contributed to or induced acts of patent infringement by others in this judicial district. PNC is registered to do business in Texas and maintains an agent authorized to receive service of process within Texas.

6. Venue is proper under 28 U.S.C. § 1400(b) because PNC has committed acts of infringement and maintains a regular and established place of business in this judicial district.

7. PNC occupies several permanent, physical places within this District from which PNC carries out its business. For example, PNC has physical “solution center” branches in the following locations in this District: (1) Allen Solution Center, 829B W Stacy Road, Suite 100, Allen, Texas 75013; (2) Denton Solution Center, 2310 W. University Drive, #1540, Denton, Texas

76201; and (3) Plano Solution Center, 7300 Dallas Pkwy, Suite A140, Plano, Texas 75024. PNC conducts business from these solution centers using physical equipment and employees located within the District. For example, on information and belief, each of these solution center branches allows customers to obtain certain banking services from PNC via in-person appointments with PNC employees. In addition, each of these locations offers customers the opportunity to conduct banking business via video tellers and/or traditional ATM machines. As a further example, PNC maintains several additional ATM locations in this district.

IV. BACKGROUND ALLEGATIONS

USAA's Investments And Pioneering Innovations

8. This is an action for infringement of patents awarded to research and development teams at USAA for their years of work developing and improving technologies that, among other things, allow banking customers to easily and conveniently deposit paper checks into their accounts from their smartphones – wherever they might be in the world.

9. USAA has been serving present and former members of the U.S. military and their families since 1922 and is one of America's leading insurance and financial services companies. USAA offers its members a wide range of insurance and banking products and services, and investing services designed to help them meet their financial security needs. Headquartered in San Antonio, Texas, with offices in several states and Europe, USAA employs more than 33,000 people to provide for the financial well-being of over 12 million members.

10. Unlike traditional banks, which usually maintain a network of brick-and-mortar bank branches or ATMs for customers to use, USAA typically interacts with its members remotely, either by mail, telephone, or with increasing frequency through its usaa.com website or USAA's mobile application. USAA's online and mobile presence is critical to its members' well-being, particularly as USAA's military members are often stationed in distant locations around the world with limited access to traditional banking services.

11. Driven by its mission to serve its members, starting in or around 2004, USAA invested substantial research and development resources into developing and implementing

systems and methods that would provide USAA's members with a real-time capability to deposit a financial instrument from just about anywhere. These pioneering systems and methods resulted in a prototype developed by 2005, and the launch in 2006, of a consumer device remote check deposit system under the name Deposit@Home®. In 2009, USAA launched an application branded as Deposit@Mobile®, which today is available and used worldwide on devices such as iPhones, iPads and Android-based mobile devices. For the first time in banking history, USAA's patented systems allowed customers to deposit checks anytime, anywhere by taking photographs with consumer electronics that consumers actually own or can easily acquire, such as a mobile phone's digital camera. USAA has invested millions of dollars and thousands of employee-hours in the development and implementation of its mobile deposit technologies.

The Asserted USAA Patents

12. This action involves two of the patents that protect USAA's investments in its mobile deposit technologies: U.S. Patent Nos. 10,013,605 (the "'605 Patent") and 10,013,681 (the "'681 Patent") (collectively, "USAA Patents").

13. The '605 Patent is entitled "Digital camera processing system," and its inventors are Charles Lee Oakes III, Randy Ray Morlen, Michael Frank Morris, Reynaldo Bartlette Medina III, Greg Alan Harpel, Gabriel Glenn Gavia, Bharat Prasad, Frank Kyle Major, and Jeffrey Neal Pollack. The '605 Patent derives its effective filing date from an application that USAA filed on October 31, 2006.

14. The '605 Patent's claims solve discrete, technological problems associated with computing systems used as part of capturing images of checks for deposit, representing new, novel and useful improvements over the existing and/or patentably distinct means and methods. For example, the inventions in the '605 Patent's claims provide improved functionality over conventional techniques, resulting in an enhanced user interface for the customer's mobile device and enhanced performance. As another example, the '605 Patent's claims improve the quality of captured check images by using the mobile device's display and camera systems to provide instructions to the user while the user is attempting to capture check images. Additionally, the '605

Patent's inventions help to make remote check deposit systems commercially viable by reducing error rates, reducing fraud, and improving security, for example, through validation of check information and error detection, and logging of information related to the check, such as an image of the check in a particular format, or authentication of the user. The '605 Patent's improvements to mobile check depositing systems are further described in its specification.

15. On March 22, 2021, the '605 Patent overcame a petition for Inter Partes Review ("IPR") (IPR2020-01742). The Patent Trial and Appeal Board ("PTAB") denied institution, finding no reasonable likelihood that Mitek would prevail in proving any claim of the '605 Patent unpatentable. According to the PTAB, Mitek had not shown its combined references "achieve[] more security, mobility, and accuracy over the mobile check deposit process," which were the goals and benefits of the '605 Patent. *Id.* at 22-23. This is the second time that the '605 Patent overcame post-grant review.

16. When denying institution of IPR, the PTAB provided the following characterization of the '605 Patent and its benefits:

The '605 patent describes a system for depositing checks remotely from a handheld mobile device. Ex. 1001, code (57), 2:33–54, 8:32–34.

Figure 1 of the '605 patent is reproduced below.

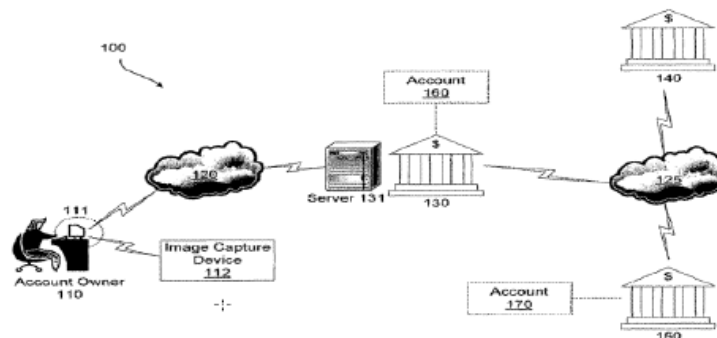


FIGURE 1

Figure 1 above illustrates a system for remote check deposits. System 100 includes server 131 located at financial institution 130, publicly accessible network 120, and general purpose computer 111 coupled to image capture device 112. *Id.* at 3:36–47. For example, account owner 110 (a bank customer), who has account 160 at financial institution 130, may use general purpose computer 111 to generate images of a check and send the images to server 131, via publicly accessible network 120. *Id.* General purpose computer 11 “may be in a desktop or *laptop* configuration.” *Id.*

at 3:65–66 (emphasis added). Financial institution 130 may forward the image over network 125 to one or more other entities 140, 150, which may be associated with account 170 on which the check was drawn. *Id.* at 3:55–58.

Figure 4 of the '605 patent is reproduced below.

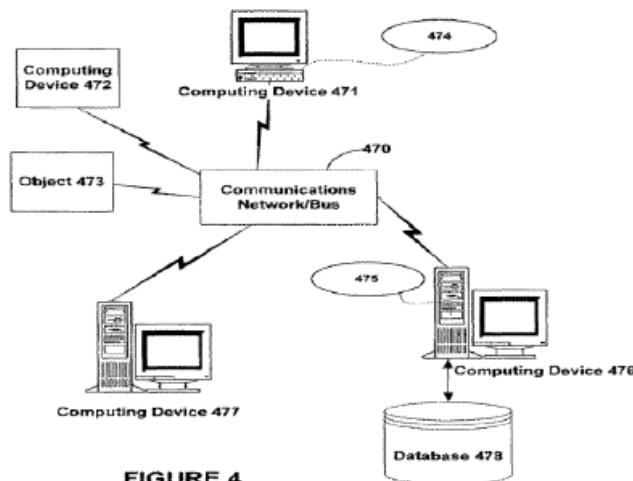


Figure 4 above illustrates an exemplary network architecture for connecting a general purpose computer to financial institution in a distributed computing environment. *Id.* at 3:4–8, 7:51–55. According to the '605 patent, the connected devices may be computers, digital devices such as Personal Digital Assistances (“PDAs”), televisions, MP3 players, software objects such as interfaces, communication objects, and the like. *Id.* at 8:28–34.

Id. at 3-5.

17. Wells Fargo Bank, N.A. (“Wells Fargo”) previously filed a petition for Covered Business Method review (“CBM”) against the '605 Patent (CBM2019-00029) in March 2019. The PTAB denied institution, finding that the claims of the '605 Patent were directed to technological features that are novel and unobvious over the prior art and solve technical problems using technical solutions and were thus ineligible for CBM review. According to the PTAB, “capturing an image of a check of sufficient quality with a mobile device so that data may be accurately extracted from the image to perform a mobile check deposit is a technical solution to a technical problem.” *Id.* at 21.

18. The '681 Patent is entitled “System and method for mobile check deposit,” and its inventors are Charles Lee Oakes III, Randy Ray Morlen, Bharat Prasad, and Troy Bartlette Huth.

The '681 Patent derives its effective filing date from an application that USAA filed on October 31, 2006.

19. Among other things, the '681 Patent's claims solve discrete, technological problems associated with computing systems used as part of capturing images of checks for deposit, representing new, novel and useful improvements over the existing and/or patentably distinct means and methods. The inventions in the '681 Patent's claims provide improved functionality over conventional techniques, resulting in an enhanced user interface for the customer's mobile device and enhanced performance. For example, the '681 Patent's claims improve the quality of captured check images by using the mobile device's display and camera systems to provide instructions to the user while the user is attempting to capture check images and helping the user place the camera at the proper distance away from the check to capture valid check images for depositing. Additionally, the '681 Patent's inventions help to make remote check deposit systems commercially viable by reducing error rates, reducing fraud, and improving security, for example, through validation of check information and error detection, and logging of information related to the check, such as an image of the check in a particular format, or authentication of the user. The patent's improvements to mobile check depositing systems are further described in its specification.

20. The '681 Patent has also overcome two post-grant review petitions at the PTAB. On March 9, 2021, the PTAB issued a decision denying institution, finding no reasonable likelihood that Mitek would prevail in proving any claim of the '681 Patent unpatentable.

21. When denying institution of IPR, the PTAB provided the following characterization of the '681 Patent and its benefits:

The '681 patent recognizes that “[c]hecks typically provide a safe and convenient method for an individual to purchase goods and/or services.” Ex. 1001, 1:4–5. The '681 patent states that, “[although] a check may provide a payor with a convenient and secure form of payment, receiving a check may put certain burdens on the payee,” one of which is the “time and effort required to deposit the check.” *Id.* at 1:50–53. For instance, depositing a check by visiting a local bank branch and physically presenting the check to a bank teller requires a certain time commitment on behalf of the payee. *Id.* at 1:53–60. The '681 patent also states that “[a] check may pose other burdens for the payee.” *Id.* at 1:61. For instance, a payee may be limited in how it uses funds from a check because purchasing goods and/or services

using the check requires the payee to endorse the check and then have a third party accept the check; such transactions often are disfavored because the seller of the goods and/or services may not be “willing to accept the risk that . . . [there are] insufficient funds to cover the check.” *Id.* at 1:61–2:3.

The '681 patent purports to address these burdens by providing “a convenient method of remotely depositing a check while enabling the payee to quickly access the funds from the check.” Ex. 1001, 2:8–10. Figure 2 of the '681 patent, reproduced below, illustrates one embodiment for depositing a check using a customer-controlled general purpose computer. *Id.* at 2:64–67. ‘

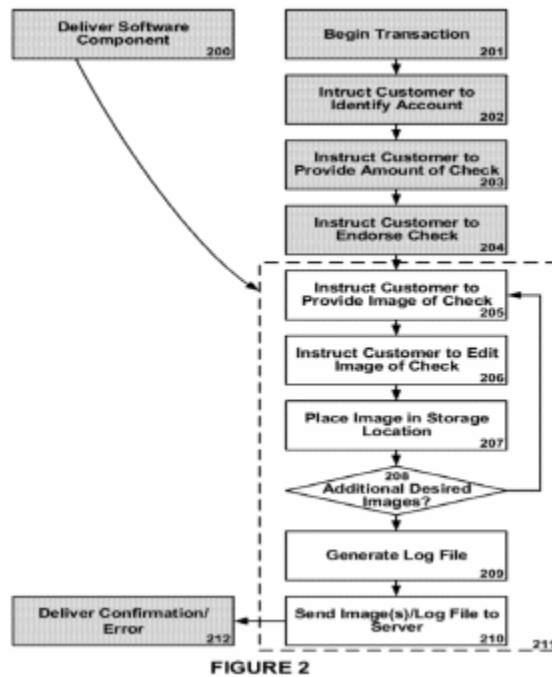


FIGURE 2

Figure 2, reproduced above, begins with delivering or downloading a software component to the customer-controlled general purpose computer at step 200. *Id.* at 6:48–49. After downloading the software component, and assuming the customer-controlled general purpose computer has an appropriate image capture device, the customer begins the deposit transaction by, for example, using a browser application to access a bank website “where a link may be available that causes the bank server to initiate a deposit transaction [at step] 201.” *Id.* at 7:17–23.

As further shown in Figure 2, reproduced above, the customer identifies the account into which he/she wishes to deposit the check at step 202, identifies the amount of the check he/she wishes to deposit in the selected account at step 203, and then endorses the check at step 204. Ex. 1001, 7:25–26, 7:42–44, 7:48–49. The customer uses the image capture device to provide an image of the check at step 205. *Id.* at 7:50–52. For example, “[i]f the customer is instructed to take a digital photograph of the check using a digital camera, the customer may be instructed as to the position and orientation of the check, lighting, angle of [the] camera, distance and focal length (zoom) of [the] camera, and so forth.” *Id.* at 7:55–60. The software

component next causes the image of the check to be presented to the customer for editing (e.g., “by asking the customer to crop and/or rotate the check image to a predetermined orientation [at step] 206”). *Id.* at 8:22–25.

In another embodiment, after the user receives an image of the check, Optical Character Recognition (“OCR”) may be performed on the Magnetic Ink Character Recognition (“MICR”) line location of the check to determine information, such as the payor bank’s routing number, the account number, and the check number. Ex. 1001, 9:17–22. The ’681 patent explains that the use of the OCR process permits reading (1) the bank’s routing number on the check itself so that it may be validated against a list of valid routing numbers, (2) both sides of the check to confirm that the check image includes a front image and back image (to avoid the problem where two front sides are scanned), and (3) the check amount location so that it may be compared to an amount previously indicated by the user, such as in step 203. *Id.* at 9:23–27, 9:35–46, 10:36–44.

The process illustrated in Figure 2 continues by placing “[a]n appropriately edited image of the check” in a storage location at step 207 and, if further images of the check are necessary at step 208, steps 205–207 may be repeated. Ex. 1001, 8:33–35. A log file also may be generated at step 209 “to collect data for processing or troubleshooting the deposit transaction” and placed in a storage location, along with the various images of the check. *Id.* at 8:40–44. After receiving and editing the desired image of the check, it is delivered to the bank server for processing the deposit at step 210. *Id.* at 8:45–47. If the bank server determines that the image of the check and any corresponding data “are sufficient to go forward with the deposit, the customer’s account may be provisionally credited, and a confirmation page may be delivered to the customer via the customer’s browser application [at step] 212.” *Id.* at 8:49–54.

Id. at 4–7.

22. Wells Fargo had previously filed a petition for CBM review against the ’681 Patent (CBM2019-00028) in March 2019. The PTAB denied institution, finding that the claims of the ’681 Patent were directed to technological features that are novel and unobvious over the prior art and solve technical problems using technical solutions and were thus ineligible for CBM review. According to the PTAB, the ’681 Patent’s claims “recite technological features that solve a technical problem using a technical solution by capturing electronic images of a check using a digital camera and a portable device for remote deposit.” *Id.* at 27.

23. Together, the USAA Patents are directed to improved computing systems that enable commercially-viable remote check deposit systems used today by PNC. The USAA Patents solve technological problems associated with earlier systems used for capturing images of checks.

These innovations allowed USAA, for the first time in banking history, to allow users to transform general-purpose consumer devices that they have in their homes or are otherwise easy to acquire into a check-image capture device. This had a profound impact on USAA's members and USAA's ability to accept deposit of remote checks, including because it eliminated the need for consumers (many of whom have limited means) to acquire or access specialized check processing equipment to deposit checks remotely.

24. Prior to USAA's inventions, checks were processed for deposit using specialized check scanning machines, which typically were located in bank facilities or leased to businesses for use in their back offices. High-tech equipment manufacturers sold a variety of check scanning machines that cost up to tens of thousands of dollars.

25. The passage of the Federal "Check 21 Act" in 2003 increased the technical risks associated with check imaging. A report by Alogent entitled "The Client Business Case for Remote Deposit Capture" explained how, under Check 21, items would be returned due to poor image quality, either on the digital image, or the printed Image Replacement Document (IRD).

26. The deposit of check images requires compliance with certain technical specifications, such as the "Specifications for Electronic Exchange of Check and Image Data," also known as DSTU X9.37-2003: a technical specification published by the Accredited Standards Committee X9, Inc. that spells out the file sequences, record types, and field formats to be used for the electronic exchange of check MICR line, associated check processing data and check images.

27. An industry white paper entitled "Check 21: Controlling Image Quality at the Point of Capture" was published in 2004. The white paper acknowledges that one challenge facing remote deposit capture ("RDC") is that the human eye does not have the ability to distinguish between a check image that meets digital processing criteria and one that does not. For example, the white paper points out that what is an acceptable image to one person may be unacceptable to another. The white paper discussed the importance of ensuring that an acceptable image of a check is captured at the first point of entry to the check clearing process, as a check image with quality

issues is likely to be unpayable and represents a liability to the bank. Further, the report identified and discussed basic measurement metrics to ensure that a check image may be successfully cleared. Also in 2004, the FSTC, a financial industry technical group, published a report entitled “Image Quality and Usability Assurance - Phase I Project.” The report discussed a number of factors such as image size, skew, lightness/darkness, focus, and noise, among others that can lead to a failed image. Other publications discussing the perceived challenges of remote deposit include statements made in 2005 by CIT Engineering Team, who designs specialized scanners for the RDC process, the RDC process is so delicate that small insights and/or small oversights are what distinguish an outstanding check scanning product from a mediocre one.

28. When USAA introduced its novel technology to the market, it was met with both delight and concern because of its disruptive force. For example, in September 2009, AdAge published a report entitled “How Mobile Technology Is Changing Banking’s Future,” which observed that “USAA represents the bleeding edge of mobile banking technology” and described its pioneering system as a “technological development [] that allow[s] for deposits by iPhone and mobile payments.” As another example, in June 2009, Celent published an article entitled “USAA’s Mobile Remote Deposit Capture Initiative.” The article stated that mobile RDC is so disruptive that many banks might pass on the idea. The report acknowledged that USAA’s mobile RDC provided a compelling competitive advantage over other banks.

29. By facilitating and improving remote mobile deposit, the innovations of the USAA Patents facilitate significant cost savings and provide many other financial benefits to banks. For example, in 2011, NCR published a white paper entitled “Mobile Remote Deposit Capture.” The white paper reported that the average cost of processing a paper check transaction at a bank branch is \$3.75, and that a mobile deposit costs just \$0.14.

30. As another example, in 2015, Celent published a report entitled “State of Remote Deposit Capture 2015 - Mobile Is the New Scanner.” The abstract of the report observed that mobile RDC was becoming the alternative to specialized check scanners, with banks racing to offer mobile RDC, which Celent predicted would have a profound effect on the branch channel.

The report also observed that USAA's systems result in a substantial improvement over the existing marketplace of complex, expensive check scanning machines and that by the date of the report mobile check image capture users outnumbered those using specialize desktop devices by more than 40 to 1. As another example, in 2016, an article entitled "Mobile Check Deposits - Pro Tips to Ensure They Go Smoothly" was published by an industry technology analyst on nerdwallet.com. The article acknowledged that mobile check deposit had become the most popular feature of mobile banking, estimating that there are about 87 million people in the U.S. depositing checks using mobile check deposit.

PNC Bank's Infringement

31. PNC is one of the largest full-service consumer and commercial banking providers in the United States. According to PNC's website, PNC customers now deposit on average over 2 million checks per month using their mobile devices.

32. PNC's mobile remote deposit capture systems, including but not limited to *PNC Mobile Deposit* and *PNC Deposit On-Site Mobile®* are referred to herein, along with any other infringing instrumentalities that include similar functionality, as "PNC Mobile Deposit." PNC states that users "can easily deposit a check right from your smartphone" using PNC Mobile Deposit, touting that deposit can be done "quickly, conveniently, and securely with mobile deposit and our mobile banking apps":

See How Easy it is to Deposit a Check with PNC Mobile Deposit



PNC customers deposit on average over 2 million checks per month^[2] using their mobile devices!

See how easily you can deposit a check right from your smartphone — quickly, conveniently, and securely with mobile deposit and our mobile banking apps.

With our standard funds availability, deposits completed before 10 p.m. ET on a business day will be available the next day at no charge^[3].

[Mobile Deposit FAQs »](#)

[Explore additional mobile banking options »](#)

[Get started with online banking. Learn how »](#)

33. PNC also promotes PNC Mobile Deposit with video advertisements, including commercials specifically touting mobile deposit, and has offered special promotions to customers to encourage them to try mobile deposit.

34. PNC receives mobile check deposits from customers who, for example, download its application for iPhone or Android devices and use the application and device as instructed by PNC, including as detailed on PNC's website and in its user guidelines.

35. PNC did not release PNC Mobile Deposit until years after USAA had already implemented and released its patented technology to widespread adoption, demonstrating the commercial viability of USAA's patented technology.

36. PNC had actual knowledge of its infringement of the USAA Patents before the filing of the Complaint. For example, on October 22, 2020, PNC confirmed that it had actual knowledge of the USAA Patents, acknowledging that it was aware of a prior litigation in which USAA asserted the USAA Patents against Wells Fargo. As another example, on September 30, 2020, USAA filed a Complaint in Case No. 2:20-cv-00319-JRG (E.D. Tex.) regarding PNC's infringement of U.S. Patent Nos. 10,482,432 (the "'432 Patent") and 10,621,559 (the "'559 Patent"), which expressly discuss the '681 Patent.

37. Moreover, since at or shortly after the time of its issuance, the USAA Patents have been publicly known and widely publicized in the banking industry, including in major publications read by PNC employees. For example, the *American Banker*, a publication which describes itself as "the essential resource for senior executives in banking and financial services, keeping its users updated on vital developments and focusing sharply on their most important concerns" ran an article, published in January 2020, discussing the jury verdict finding Wells Fargo liable for infringing the USAA Patents and awarding USAA \$102.8 million in past damages. The article reported "Wells Fargo has lost a [] mobile deposit patent lawsuit brought against it by USAA," noted that "other banks should be on alert if they use the same technology," and specifically referenced USAA's Deposit@Mobile product. Similar articles appeared in other major publications such as *Bloomberg* and *Business Insider*. Indeed, some of the news coverage of

USAA's mobile deposit patents specifically references PNC Mobile Deposit. For example, *S&P Global*, a market intelligence publication covering commercial banking, published a November 2019 article about another prior jury verdict against Wells Fargo for infringement of USAA mobile deposit patents that stated "other banks with apps for mobile check deposit could also be on the hook," and specifically listed "PNC Financial Services Group Inc." Upon information and belief, PNC monitors these industry publications. For example, PNC's website has specifically touted and cited coverage from the *American Banker*, *Bloomberg*, *Business Insider*, and *S&P Global*.

38. In addition to the widespread coverage of USAA's lawsuits against Wells Fargo, USAA's Deposit@Mobile® technology has been well-known and publicized for years, and USAA receives widespread acclaim for its pioneering innovations in mobile deposit. For example, a 2020 report by Javelin Strategy and Research named USAA "as an overall 'Leader' in both mobile and online banking," and also evaluated PNC. Upon information and belief, PNC is aware of this and other acclaim for USAA's Deposit@Mobile® products, including because it was widespread in the industry and because some of the press surrounding USAA also referred specifically to PNC. As an example, a 2011 article in the *Washington Post* entitled "PNC launches mobile bank deposits" noted that "USAA Federal Savings first introduced mobile deposit in 2009." PNC has previously cited articles from the *Washington Post* on its website and, on information and belief, closely monitors media coverage discussing its own products.

39. USAA is further informed and believes that PNC has actual and constructive knowledge of the USAA Patents as a result of its awareness of USAA's Deposit@Mobile® products and USAA's patent marking. For example, USAA marks its Deposit@Mobile® products pursuant to 35 U.S.C. § 287 through the USAA mobile application. As a further example, the Deposit@Mobile® mobile application contains a "United States Patents" section also specifically listing the USAA Patents by number.

40. Further, to the extent that PNC contends it lacked actual knowledge of any aspect of its infringement of the USAA Patents before the time of service of this Complaint, it was also

willfully blind by deliberately avoiding an investigation. Further, PNC has additional actual knowledge of its infringement of the USAA Patents by virtue of this complaint.

41. As detailed below, PNC's conduct with respect to Mobile Deposit constitutes willful infringement of the USAA Patents. PNC's use of the USAA Patents is not licensed or authorized by USAA in any way.

42. PNC has profited, and continues to profit, including by providing its infringing mobile deposit service to millions of PNC customers without USAA's permission and without any compensation to USAA, materially harming USAA and its members.

V. FIRST CLAIM FOR RELIEF – '605 PATENT

43. USAA re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

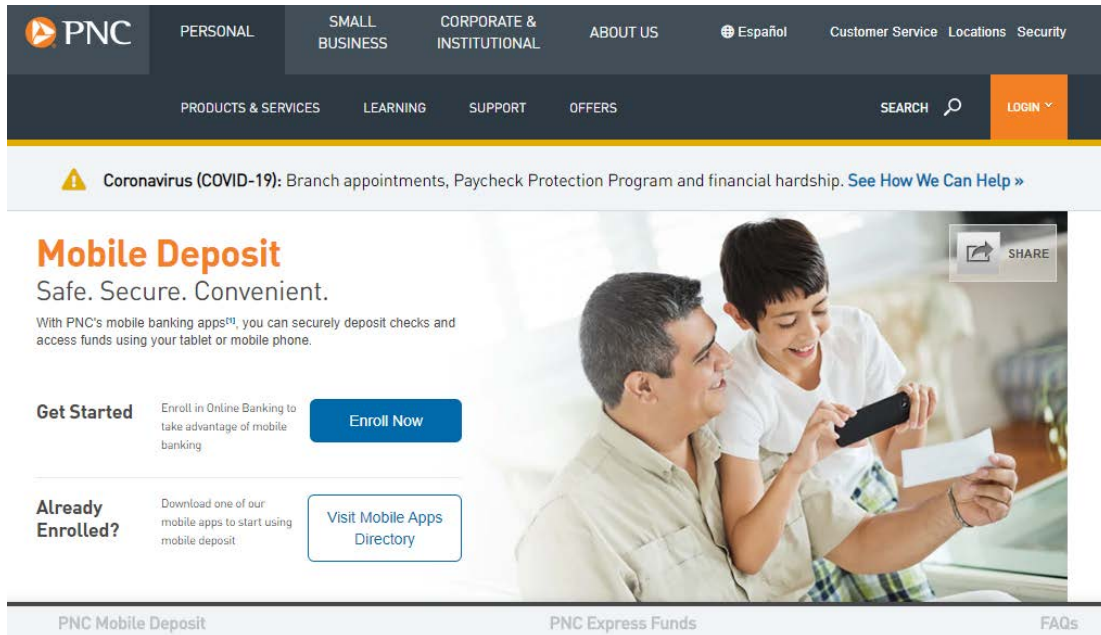
44. The '605 Patent, entitled "Digital camera processing system" was duly and legally issued on July 3, 2018. A true and correct copy of the '605 Patent is attached as Exhibit A.

45. USAA owns by assignment the entire right, title, and interest in and to the '605 Patent, including the exclusive right to seek damages for past, current, and future infringement thereof.

46. USAA is informed and believes, and on this basis alleges, that PNC, agents of PNC, and/or third parties acting under PNC's direction and control, have committed and continue to commit acts of direct infringement of one or more claims of the '605 Patent literally and/or under the doctrine of equivalents, by making, using, selling, offering to sell and/or importing into the United States, PNC Mobile Deposit. Further, PNC controls the infringing system as a whole and obtains benefits from it. Indeed, PNC requires users to use the infringing system in order to deposit checks to their PNC account via a mobile device, and provides terms and conditions governing their use. For example, PNC states on its website that "Use of the Mobile Deposit feature requires a supported camera-equipped device and you must download a PNC mobile banking app," and that all "mobile banking terms and conditions" apply.

47. For example, the PNC Mobile Deposit system through which PNC receives

deposits includes a portable or mobile device that includes a downloaded software or app that controls or works with a digital camera:



Mobile Apps Directory

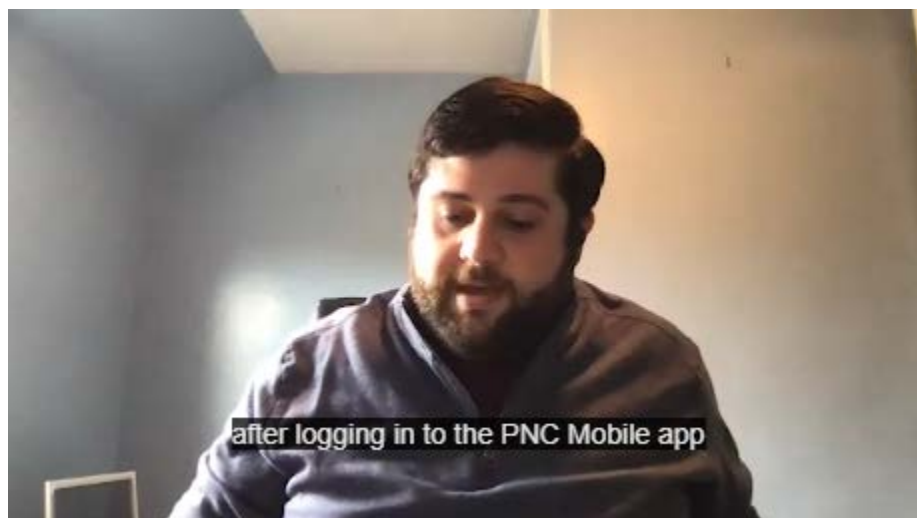
Check out PNC's mobile app offerings!

Enjoy the convenience of Online Banking from your mobile device with PNC Mobile Banking for FREE!

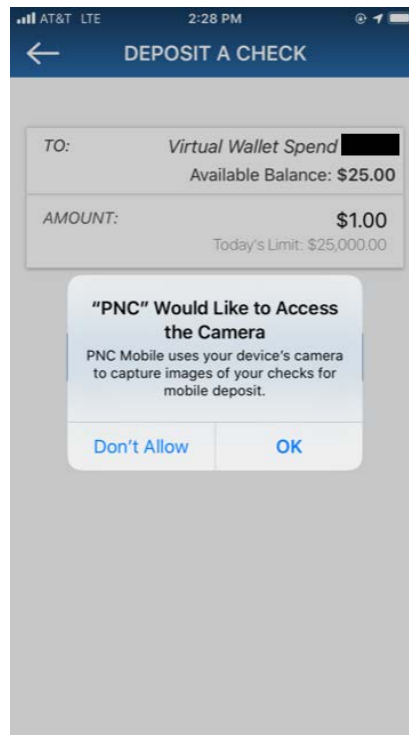
Download PNC Apps: [Apple®](#) | [Google Play](#) | [Amazon](#)



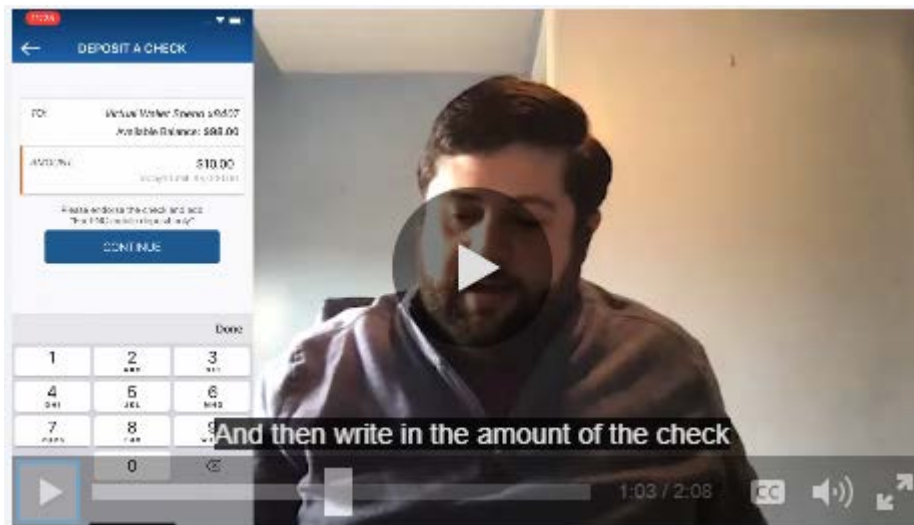
48. Additionally, PNC Mobile Deposit asks the customer to engage in an authentication process:



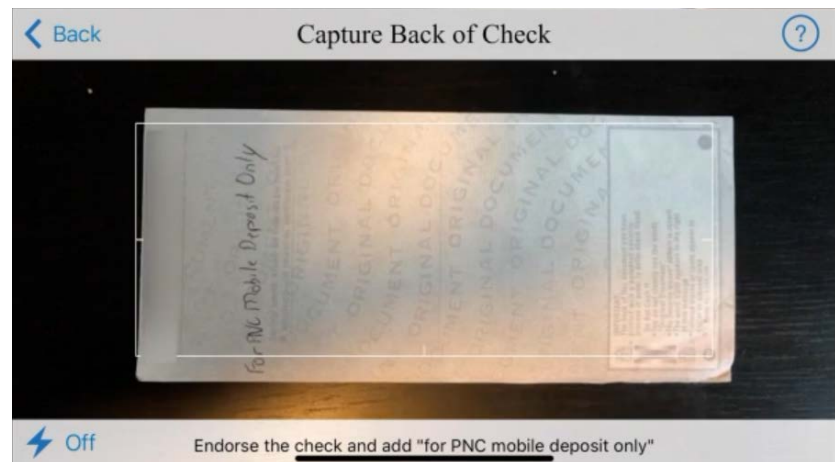
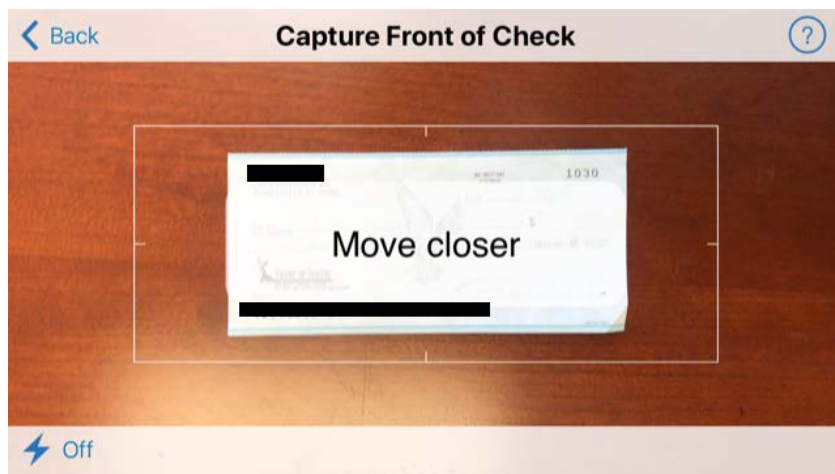
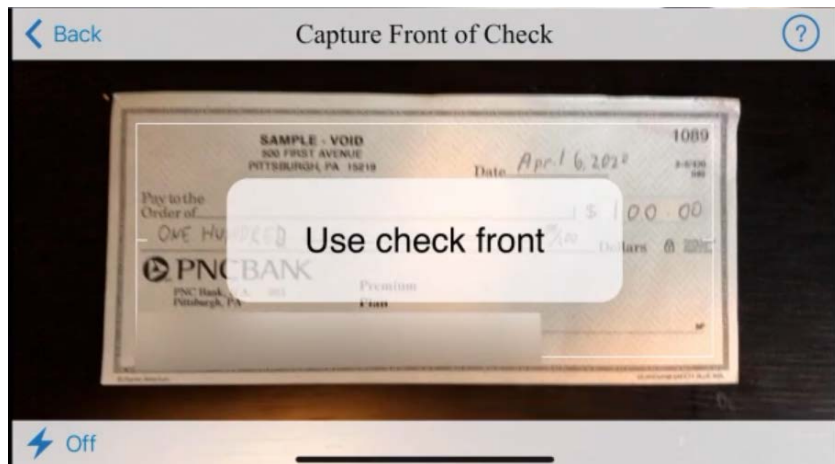
49. As another example, PNC Mobile Deposit uses the camera in the personal or mobile device to provide remote check depositing functionality:



50. As another example, PNC Mobile Deposit receives, from the user, an indication of the amount of the check and the account into which the check is to be deposited:

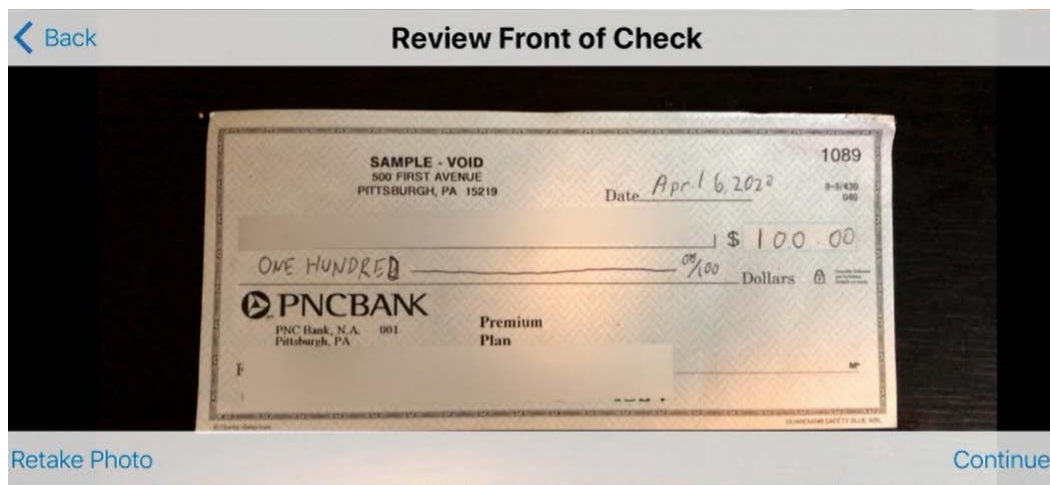


51. A further example is that PNC Mobile Deposit uses the camera in the personal or mobile device to capture images of the check for deposit:

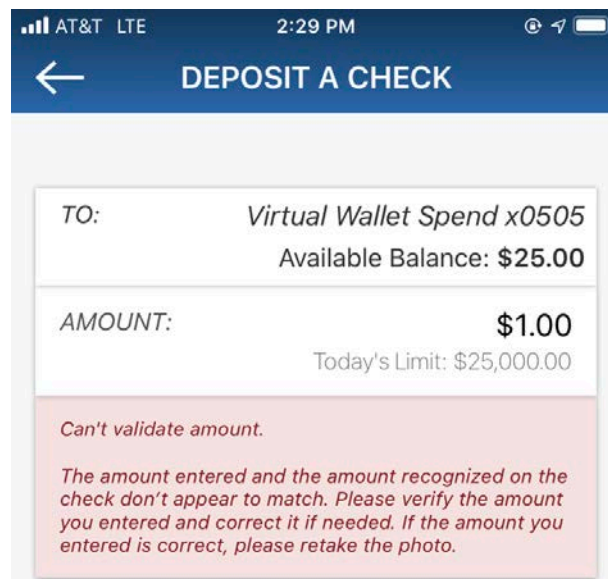


52. As illustrated in the above images, PNC Mobile Deposit gives user instructions, such as telling a user to have the digital camera capture electronic images of front and back sides of a check.

53. In addition, PNC Mobile Deposit presents the photo of the check:



54. As another example, PNC Mobile Deposit causes the mobile device to confirm that the mobile check deposit can go forward after optical character recognition (“OCR”) is performed on the check in the photo, and also checks for errors. For example, if the customer-entered amount and the OCR determined amount do not match, the PNC Mobile Deposit application will display a message stating: “The amount entered and the amount recognized on the check don’t appear to match. Please verify the amount you entered and correct it if needed. If the amount you entered is correct, please retake the photo.”



55. PNC also is inducing infringement of the '605 Patent, in violation of 35 U.S.C. § 271(b), including by knowingly encouraging or aiding third parties to make, use, sell or offer to sell PNC Mobile Deposit in the United States, or to import PNC Mobile Deposit into the United

States, and/or in violation of 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied PNC Mobile Deposit in or from the United States, without license or authority from USAA, with knowledge of or willful blindness to the fact that PNC's actions will induce others to directly infringe the '605 Patent. PNC actively encourages, directs, and controls third parties, including its end users, to make and/or use PNC Mobile Deposit in an infringing manner, including through PNC's website, advertisements, documentation/instructional material, customer support, application and feature descriptions, and in-application instructions. PNC has intentionally aided and encouraged third parties, including its end users, to use PNC Mobile Deposit in the United States in a manner that it knows would infringe or have a high probability of infringing the '605 Patent, with the specific intent that those performing the acts infringe the '605 Patent.

56. PNC is contributorily infringing the '605 Patent in violation of 35 U.S.C. § 271(c), by selling, offering to sell, and/or importing into the United States, and/or in violation of 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States, PNC Mobile Deposit for use in infringing the '605 Patent, constituting a material part of the invention, knowing PNC Mobile Deposit to be especially made or especially adapted for use in infringing the '605 Patent. PNC Mobile Deposit is not a staple article or commodity of commerce suitable for substantial non-infringing use.

57. As a result of PNC's infringement of the '605 Patent, USAA has been damaged. In addition, PNC's infringing acts and practices have caused and are causing immediate and irreparable harm to USAA. USAA is entitled to recover for damages sustained as a result of PNC's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

58. USAA alleges that PNC's infringement of the '605 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to USAA pursuant to 35 U.S.C. §§ 284-285. As discussed above, PNC has had knowledge of the '605 Patent and its infringement thereof. Despite having this knowledge, PNC has deliberately continued to

infringe in a wanton, malicious, and egregious manner, with reckless disregard for USAA's patent rights.

VI. SECOND CLAIM FOR RELIEF – '681 PATENT

59. USAA re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

60. The '681 Patent, entitled "System and method for mobile check deposit" was duly and legally issued on July 3, 2018. A true and correct copy of the '681 Patent is attached as Exhibit B.

61. USAA owns by assignment the entire right, title, and interest in and to the '681 Patent, including the exclusive right to seek damages for past, current, and future infringement thereof.

62. USAA is informed and believes, and on this basis alleges, that PNC, agents of PNC, and/or third parties acting under PNC's direction and control, have committed and continue to commit acts of direct infringement of one or more claims of the '681 Patent literally and/or under the doctrine of equivalents, by making, using, selling, offering to sell and/or importing into the United States, PNC Mobile Deposit.

63. Further, PNC controls the infringing system as a whole and obtains benefits from it. Indeed, PNC requires users to use the infringing system in order to deposit checks to their PNC account via a mobile device, and provides terms and conditions governing their use. For example, PNC states on its website that "Use of the Mobile Deposit feature requires a supported camera-equipped device and you must download a PNC mobile banking app," and that all "mobile banking terms and conditions" apply.

64. For example, the PNC Mobile Deposit system through which PNC receives deposits includes a portable or mobile device that includes a downloaded software or app that controls or works with a digital camera:

PNC PERSONAL SMALL BUSINESS CORPORATE & INSTITUTIONAL ABOUT US Español Customer Service Locations Security

PRODUCTS & SERVICES LEARNING SUPPORT OFFERS SEARCH LOGIN

Coronavirus (COVID-19): Branch appointments, Paycheck Protection Program and financial hardship. [See How We Can Help »](#)

Mobile Deposit

Safe. Secure. Convenient.

With PNC's mobile banking appsSM, you can securely deposit checks and access funds using your tablet or mobile phone.

Get Started Enroll in Online Banking to take advantage of mobile banking [Enroll Now](#)

Already Enrolled? Download one of our mobile apps to start using mobile deposit [Visit Mobile Apps Directory](#)

PNC Mobile Deposit PNC Express Funds FAQs

Mobile Apps Directory

Check out PNC's mobile app offerings!

Enjoy the convenience of Online Banking from your mobile device with PNC Mobile Banking for FREE!

Download PNC Apps: [Apple®](#) | [Google Play](#) | [Amazon](#)

PERSONAL BANKING

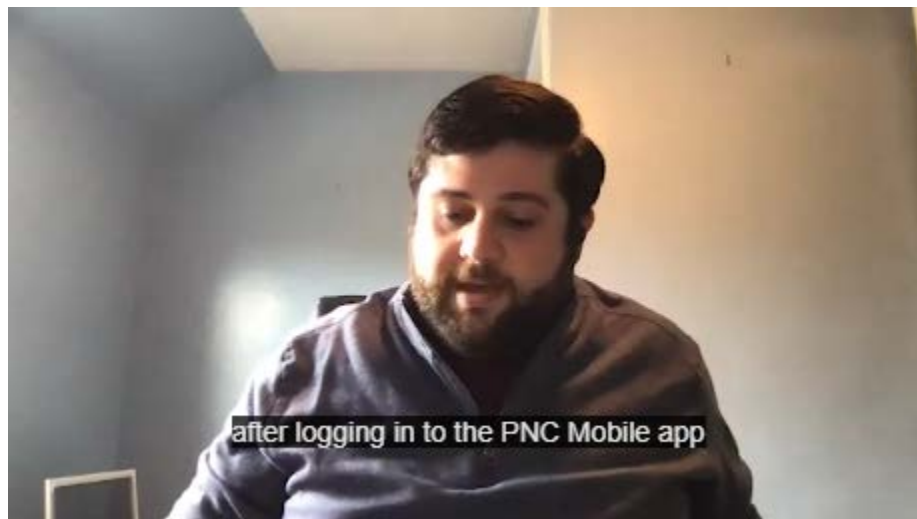
PNC Mobile Banking

Get 24/7 access to your PNC Bank account, information and services. PNC Mobile Banking is a free service offered to all PNC Online Banking customers.

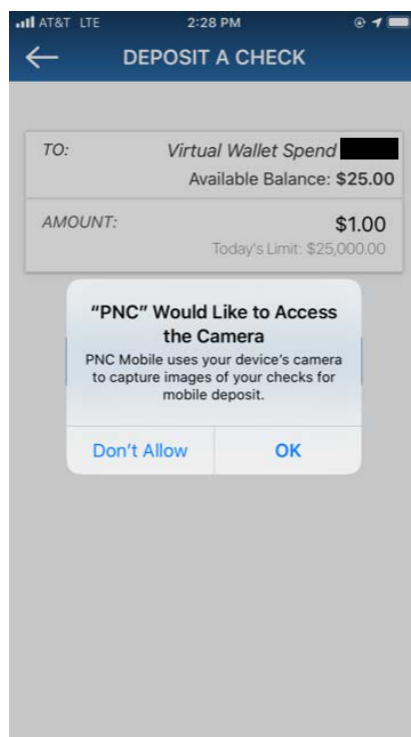
Apple Android Amazon

Indicates PNC Mobile Deposit available.

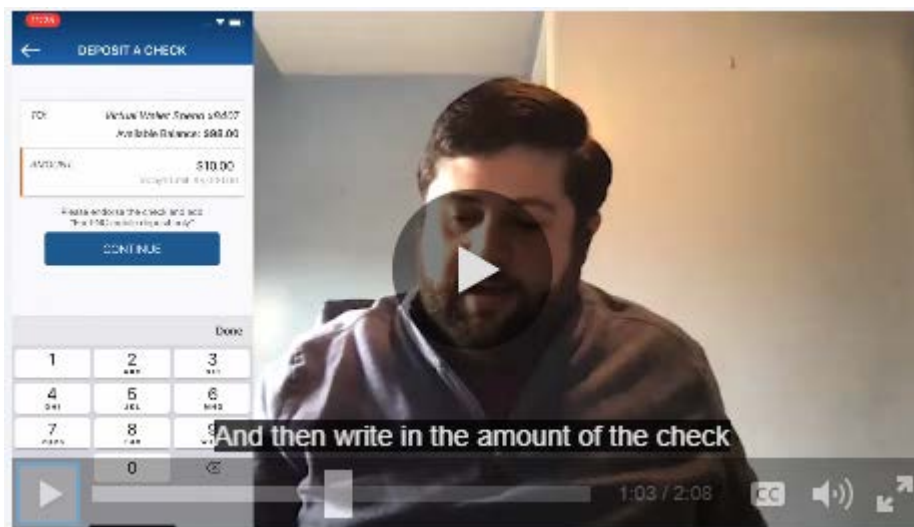
65. Additionally, PNC Mobile Deposit asks the customer to log in using a user name and password:



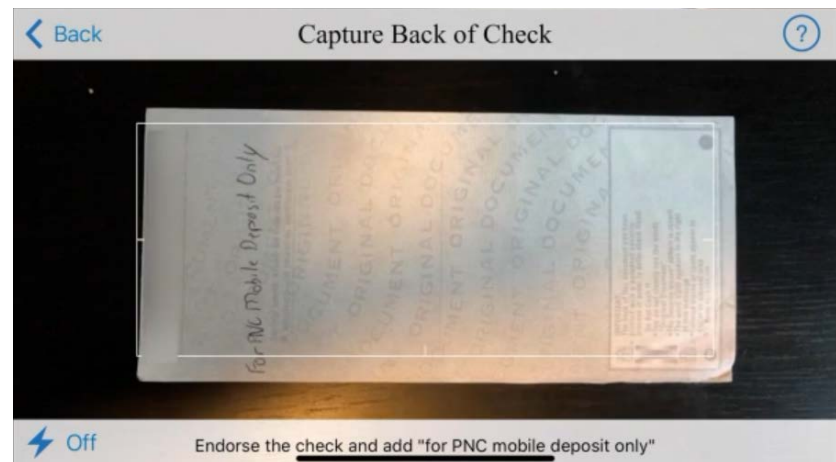
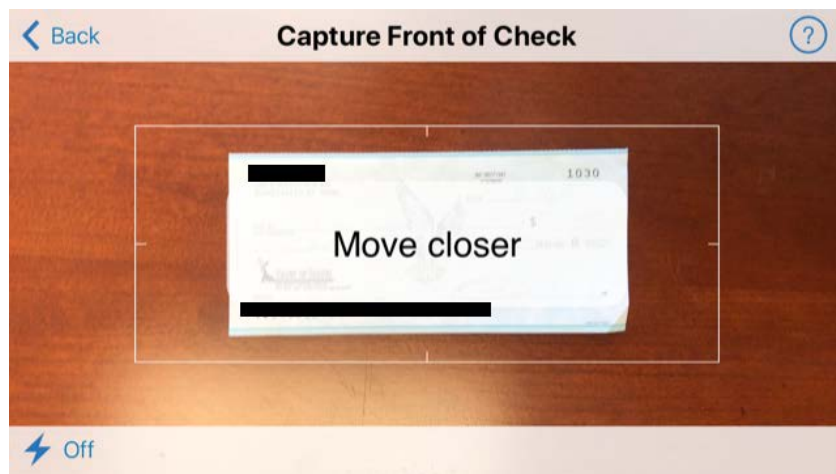
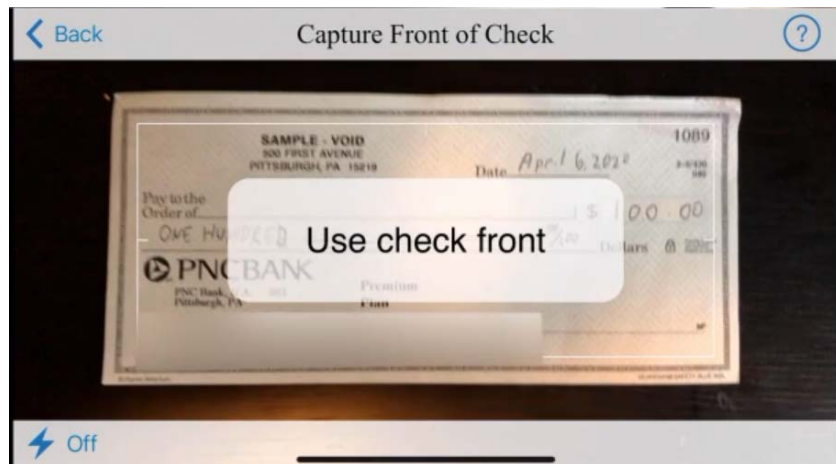
66. As another example, PNC Mobile Deposit uses the camera in the personal or mobile device to provide remote check depositing functionality:



67. As another example, PNC Mobile Deposit receives, from the user, an indication of the amount of the check and the account into which the check is to be deposited:



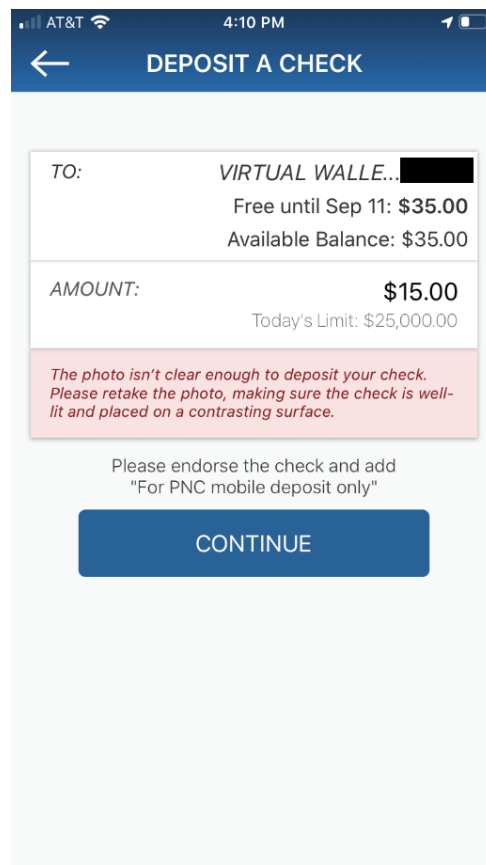
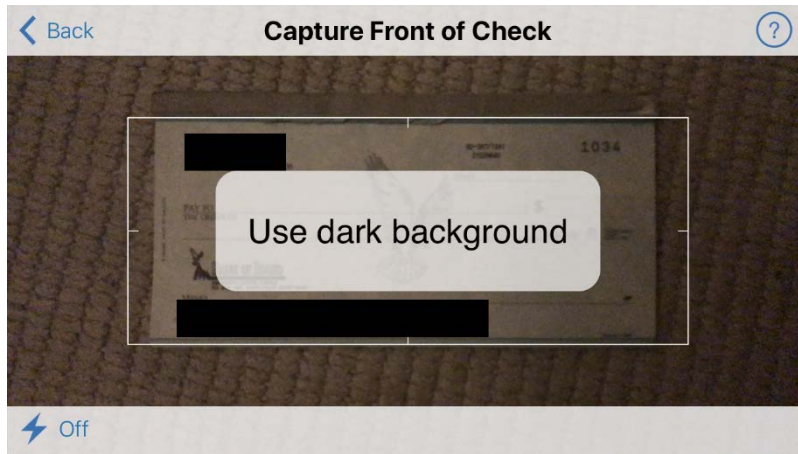
68. A further example is that PNC Mobile Deposit uses the camera in the personal or mobile device to capture images of the check for deposit:



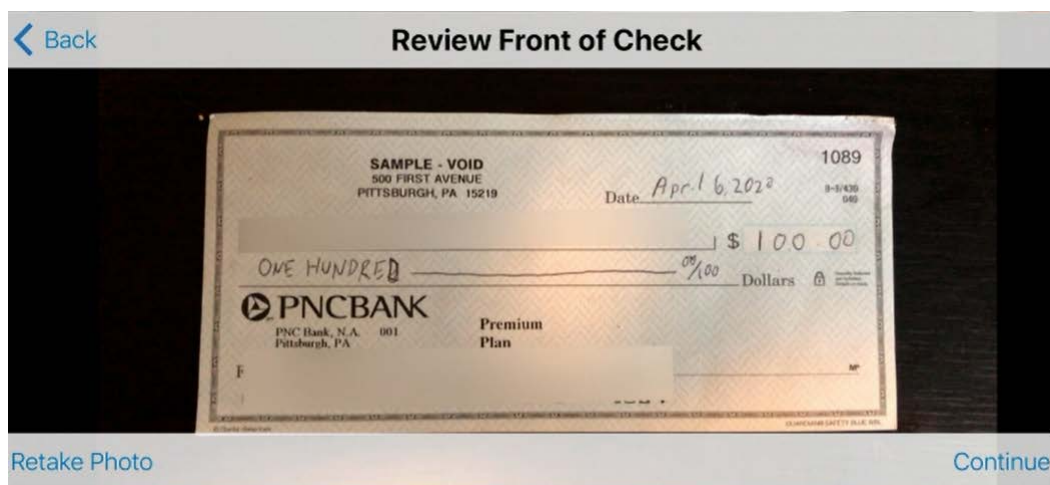
69. As illustrated in the above images, PNC Mobile Deposit gives user instructions, such as telling a user to have the digital camera capture electronic images of front and back sides of a check. The above images also demonstrate that PNC Mobile Deposit displays an illustration

to assist the customer in having the digital camera take the photos of the check, including assisting the user place the digital camera at a proper distance away from the check for taking the photo.

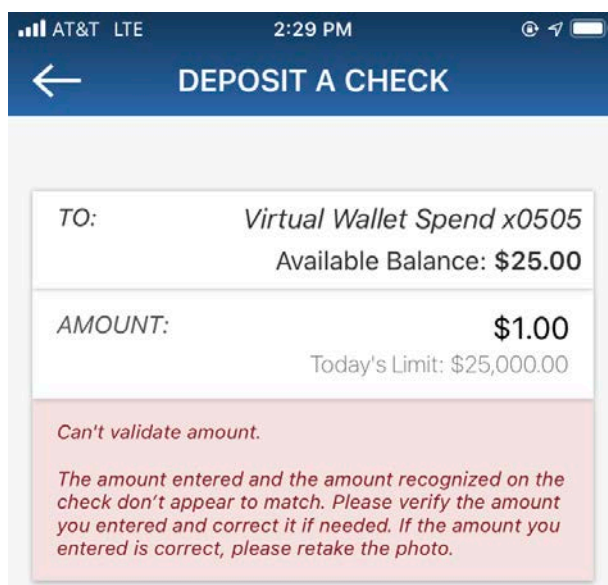
70. PNC Mobile Deposit also includes guidelines for taking photos that work best, including, for example, to “Use dark background” and “The photo isn’t clear enough to deposit your check. Please retake the photo, making sure the check is well-lit and placed on a contrasting surface”:



71. In addition, PNC Mobile Deposit presents the photo of the check:



72. As another example, PNC Mobile Deposit causes the mobile device to confirm that the mobile check deposit can go forward after optical character recognition (“OCR”) is performed on the check in the photo, and also checks for errors. For example, if the customer-entered amount and the OCR determined amount do not match, the PNC Mobile Deposit application will display a message stating: “The amount entered and the amount recognized on the check don’t appear to match. Please verify the amount you entered and correct it if needed. If the amount you entered is correct, please retake the photo.”



73. PNC also is inducing infringement of the '681 Patent, in violation of 35 U.S.C. § 271(b), including by knowingly encouraging or aiding third parties to make, use, sell or offer to

sell PNC Mobile Deposit in the United States, or to import PNC Mobile Deposit into the United States, and/or in violation of 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied PNC Mobile Deposit in or from the United States, without license or authority from USAA, with knowledge of or willful blindness to the fact that PNC's actions will induce others to directly infringe the '681 Patent. PNC actively encourages, directs, and controls third parties, including its end users, to make and/or use PNC Mobile Deposit in an infringing manner, including through PNC's website, advertisements, documentation/instructional material, customer support, application and feature descriptions, and in-application instructions. PNC has intentionally aided and encouraged third parties, including its end users, to use PNC Mobile Deposit in the United States in a manner that it knows would infringe or have a high probability of infringing the '681 Patent, with the specific intent that those performing the acts infringe the '681 Patent.

74. PNC is contributorily infringing the '681 Patent in violation of 35 U.S.C. § 271(c), by selling, offering to sell, and/or importing into the United States, and/or in violation of 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States, PNC Mobile Deposit for use in infringing the '681 Patent, constituting a material part of the invention, knowing PNC Mobile Deposit to be especially made or especially adapted for use in infringing the '681 Patent. PNC Mobile Deposit is not a staple article or commodity of commerce suitable for substantial non-infringing use.

75. As a result of PNC's infringement of the '681 Patent, USAA has been damaged. In addition, PNC's infringing acts and practices have caused and are causing immediate and irreparable harm to USAA. USAA is entitled to recover for damages sustained as a result of PNC's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

76. USAA alleges that PNC's infringement of the '681 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to USAA pursuant to 35 U.S.C. §§ 284-285. As discussed above, PNC has had knowledge of the '681 Patent

and its infringement thereof. Despite having this knowledge, PNC has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for USAA's patent rights.

VII. PRAYER FOR RELIEF

WHEREFORE, USAA prays for judgment against PNC as follows:

- A. That PNC has infringed, and continues to infringe, each of the USAA Patents;
- B. That each claim of the USAA Patents is valid and enforceable;
- C. That PNC pay damages adequate to compensate USAA for its infringement, together with interest and costs under 35 U.S.C. § 284;
- D. That PNC be ordered to pay pre-judgment and post-judgment interest on the damages assessed;
- E. That PNC be ordered to pay supplemental damages to USAA, including interest, with an accounting, as needed, of all infringements and/or damages not presented at trial;
- F. That PNC's infringement is willful and that the damages awarded to USAA should be enhanced up to three times the actual damages awarded;
- G. That USAA be awarded damages for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecution of this action, with interest, including damages for an exceptional case pursuant to 35 U.S.C. § 285 and as otherwise provided by law; and
- H. That USAA be awarded such other and further relief, including any and all injunctive and other equitable relief, as this Court deems just and proper.

VIII. DEMAND FOR JURY TRIAL

77. Pursuant to Federal Rule of Civil Procedure 38(b), USAA hereby demands a trial by jury on all issues triable to a jury.

Dated: March 31, 2021

Respectfully submitted,

PARKER, BUNT & AINSWORTH, P.C.

/s/ Robert Christopher Bunt

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